

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P645185

Luminaire Tested: OMN4DIP-SR4F0-75D75U930-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645185
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-23)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D75U930-BBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

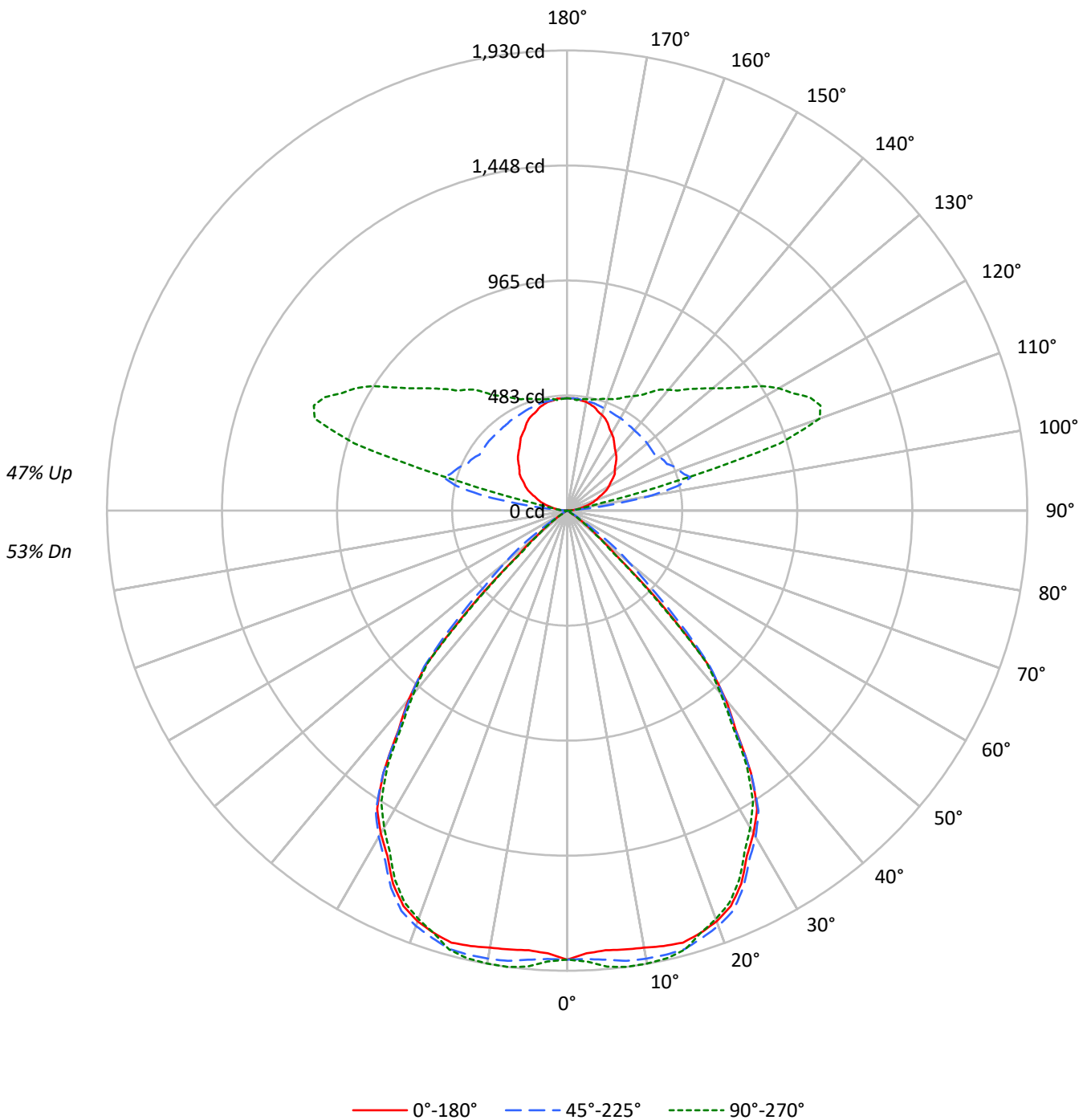
Lumens per Lamp: N/A
Luminaire Lumens: 5426.1 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 48.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P645185

CATALOG NUMBER: OMN4DIP-SR4F0-75D75U930-BBMOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P645185

CATALOG NUMBER: OMN4DIP-SR4F0-75D75U930-BBMOOB-1DUDD-WW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
RC	80									70									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53																												
1	101	97	94	91	93	90	88	85	78	76	74	66	65	64	56	55	54	49																												
2	93	87	82	78	87	82	77	74	71	68	65	61	59	57	52	50	49	45																												
3	87	79	73	68	81	74	69	64	65	61	57	56	53	51	48	46	44	41																												
4	81	71	65	60	75	67	61	57	59	55	51	51	48	46	44	42	40	37																												
5	75	65	58	53	70	61	55	50	54	49	46	47	44	41	41	39	37	34																												
6	70	59	52	47	65	56	50	45	50	45	41	44	40	37	38	35	33	31																												
7	65	54	47	42	61	51	45	40	46	41	37	40	37	34	35	33	31	28																												
8	61	50	43	38	57	47	41	37	42	37	34	37	34	31	33	30	28	26																												
9	57	46	39	34	53	43	37	33	39	34	31	35	31	28	31	28	26	24																												
10	53	42	36	31	50	40	34	30	36	31	28	32	29	26	29	26	24	22																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24327	24327	24327
5°	24000	24515	24896
10°	24413	25031	25299
15°	25087	25460	25500
20°	25201	25484	25060
25°	24620	24893	24348
30°	23311	23573	22893
35°	21190	21190	20750
40°	17428	17254	16882
45°	10419	12246	9937
50°	3368	6824	3161
55°	1191	2283	1191
60°	75	646	39
65°	46	46	0
70°	57	0	0
75°	0	0	0
80°	0	0	0
85°	222	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12246 cd/sqm



TEST NUMBER: P645185

CATALOG NUMBER: OMN4DIP-SR4F0-75D75U930-BBMOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.2	3.3
10°-20°	536.1	9.9
20°-30°	793.4	14.6
30°-40°	820.1	15.1
40°-50°	477.2	8.8
50°-60°	80.8	1.5
60°-70°	3.2	0.1
70°-80°	0.5	0.0
80°-90°	1.5	0.0
90°-100°	57.9	1.1
100°-110°	413.0	7.6
110°-120°	560.7	10.3
120°-130°	456.3	8.4
130°-140°	367.0	6.8
140°-150°	289.3	5.3
150°-160°	211.6	3.9
160°-170°	131.4	2.4
170°-180°	44.8	0.8
0°-30°	1510.7	27.8
0°-40°	2330.9	43.0
0°-60°	2888.9	53.2
0°-90°	2894.0	53.3
90°-120°	1031.6	19.0
90°-150°	2144.3	39.5
90°-180°	2532.0	46.7
0°-180°	5426.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1883	1883	1883	1883	1883	
5°	1851	1900	1891	1896	1920	177
15°	1876	1942	1904	1894	1907	528
25°	1728	1785	1747	1694	1708	789
35°	1344	1365	1344	1310	1316	823
45°	570	664	670	648	544	441
55°	53	62	101	57	53	58
65°	2	2	2	0	0	2
75°	0	1	0	0	0	1
85°	2	2	0	0	0	1
90°	0	3	6	9	9	1
95°	24	44	24	27	33	27
105°	92	141	537	686	454	97
115°	163	198	462	961	1124	162
125°	234	266	436	762	901	208
135°	290	322	439	628	720	224
145°	344	373	442	547	605	216
155°	403	418	451	496	519	185
165°	448	454	462	474	483	126
175°	471	474	471	468	465	45
180°	471	471	471	471	471	



TEST NUMBER: P645185

CATALOG NUMBER: OMN4DIP-SR4F0-75D75U930-BBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1883.4	1883.4	1883.4	1883.4	1883.4
2.5°	1858.7	1895.5	1882.2	1883.6	1892.8
5°	1851.0	1899.9	1890.7	1895.7	1920.1
7.5°	1856.6	1906.1	1904.8	1906.3	1930.1
10°	1861.3	1913.1	1908.4	1907.4	1928.9
12.5°	1870.7	1927.1	1908.4	1906.1	1924.2
15°	1876.0	1942.1	1903.9	1893.9	1906.9
17.5°	1858.1	1931.7	1879.8	1853.2	1858.4
20°	1833.4	1908.1	1854.0	1814.5	1823.1
22.5°	1794.6	1865.9	1817.5	1768.6	1779.6
25°	1727.5	1785.0	1746.6	1694.0	1708.4
27.5°	1632.2	1677.7	1653.4	1602.5	1611.4
30°	1562.9	1600.2	1580.5	1530.6	1534.9
32.5°	1482.9	1514.5	1493.5	1450.5	1450.2
35°	1343.8	1365.4	1343.8	1310.1	1315.9
37.5°	1161.8	1178.2	1156.2	1136.0	1138.8
40°	1033.6	1046.5	1023.3	1004.1	1001.2
42.5°	873.6	909.5	886.8	860.8	864.8
45°	570.4	663.9	670.4	647.5	544.0
47.5°	287.6	389.6	466.7	354.1	253.8
50°	167.6	229.4	339.6	187.5	157.3
52.5°	110.0	136.1	237.3	118.5	104.4
55°	52.9	61.6	101.4	57.2	52.9
57.5°	18.2	28.0	45.0	28.6	20.3
60°	2.9	11.6	25.0	8.7	1.5
62.5°	1.8	3.5	15.6	1.7	0.3
65°	1.5	1.5	1.5	0.0	0.0
67.5°	1.5	1.5	0.0	0.0	0.0
70°	1.5	1.5	0.0	0.0	0.0
72.5°	1.5	1.5	0.0	0.0	0.0
75°	0.0	1.4	0.0	0.0	0.0
77.5°	0.0	1.4	0.0	0.0	0.0
80°	0.0	1.4	0.0	0.0	0.0
82.5°	0.0	1.4	0.0	0.0	0.0
85°	1.5	1.5	0.0	0.0	0.0
87.5°	1.2	1.8	1.2	1.8	1.8
90°	0.0	2.9	5.9	8.9	8.9
92.5°	7.1	10.0	13.0	18.4	20.8
95°	23.7	44.0	23.7	26.8	32.6
97.5°	42.1	84.4	174.3	51.4	44.5
100°	56.3	105.6	349.8	103.0	68.2
102.5°	70.6	122.2	473.2	271.7	148.8
105°	91.9	141.2	536.6	685.5	453.6
107.5°	113.2	150.4	512.3	997.6	934.5
110°	127.5	162.3	498.1	1048.3	1126.6

TEST NUMBER: P645185

CATALOG NUMBER: OMN4DIP-SR4F0-75D75U930-BBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	141.7	176.5	483.8	1018.7	1150.3
115°	163.1	197.8	462.5	961.3	1123.6
117.5°	185.0	219.2	457.1	899.1	1066.1
120°	201.6	233.5	447.7	851.8	1025.8
122.5°	213.5	247.7	435.8	811.2	971.2
125°	234.2	266.1	435.8	762.1	901.2
127.5°	251.4	283.9	436.4	705.1	842.5
130°	260.9	295.7	438.8	667.0	797.5
132.5°	272.7	307.5	438.8	649.9	757.2
135°	290.5	322.4	438.8	627.6	720.4
137.5°	305.4	339.6	438.8	603.0	682.5
140°	317.2	349.1	438.8	588.6	661.1
142.5°	329.1	358.6	441.1	571.9	639.8
145°	343.9	372.9	441.7	546.8	604.8
147.5°	361.7	387.2	445.3	528.7	573.4
150°	373.5	396.7	447.7	516.7	554.4
152.5°	385.4	406.3	447.7	507.1	537.8
155°	403.2	417.7	450.6	495.6	518.8
157.5°	417.4	431.3	454.2	488.4	505.2
160°	426.9	438.5	456.6	483.6	498.1
162.5°	434.0	445.6	458.9	481.1	490.9
165°	447.7	453.5	462.5	474.5	483.2
167.5°	455.4	460.6	465.4	471.5	476.7
170°	462.5	465.4	465.4	471.4	474.3
172.5°	464.9	470.1	467.8	469.1	472.0
175°	471.4	474.3	471.4	468.3	465.4
177.5°	471.4	473.7	471.4	471.3	469.0
180°	471.4	471.4	471.4	471.4	471.4

(END OF REPORT)